



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/779,537	02/14/2004	Bao Tran	IPgincrring-002	8990
31688	7590	10/19/2006	EXAMINER PHAM, MICHAEL	
TRAN & ASSOCIATES 6768 MEADOW VISTA CT. SAN JOSE, CA 95135			ART UNIT 2167	PAPER NUMBER

DATE MAILED: 10/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/779,537	<b>Applicant(s)</b> TRAN, BAO	
	<b>Examiner</b> Michael D. Pham	<b>Art Unit</b> 2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**Detailed Action**

1. Claims 1 - 20 have been examined.
2. Claims 1 - 20 are pending.
3. Claims 1 - 20 are rejected as detailed below.

***Claim Rejections - 35 USC § 101***

1. Prior rejections under 35 U.S.C. 101 towards claim 19-20 for the claimed subject matter for claim 19 that all elements would reasonably be interpreted by one of ordinary skill in light of the disclosure as software, such that the system is software per se are withdrawn.
2. Prior rejections under 35 U.S.C. 101 towards claims 16-18 for the claimed subject matter for claim 16, all elements would reasonably be interpreted by one of ordinary skill in light of the disclosure as software, such that the system is software per se are withdrawn.
3. Prior rejections under 35 U.S.C. 101 towards claims 1-20 in particular claims 1, 14, 16, and 20 for not providing a tangible result are withdrawn.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for

Art Unit: 2167

patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 4-7, 11-12, and 16-17 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication 2003/0004936 by Grune et. al. (hereafter Grune).

**Claim 1:**

**A computer-implemented method for mapping intellectual property**[Grune, 0010, search and map patents.], comprising:

**Searching** (searching) **one or more remote databases** (databases) **for one or more relevant patents** [Grune, 0027, allows a user to enter a query via a client computer that is connected to a server on a global area network. Intelligent searching also provides a user access to the stored intellectual property and scientific information contained on various databases.];  
**and**

**performing a network analysis** (map) **on the relevant patents** [Grune, [0048] that the program can be used to map patent citations or patent claims in hyperbolic tree formats] **and displaying one or more patents** (intellectual property)[Grune, [0048] The program allows for simultaneous modeling of the valuation and intellectual property results. The results may be displayed in various graphical formats.].

**Claim 4:**

Art Unit: 2167

**The method of claim 1, further comprising clusterizing (grouping/indexing) patents according to word (subject/noun/verb/adjective) similarity (related/according to/ synonym)**

[Grune, 0011, intelligent searching engine will access and retrieve information from the databases of knowledge management, valuation, IP, and technology literature. After information related to query is retrieved, data is sent to SIPS-VSM's utilities. One of the utilities will group results according to subject, publication date, assignee, etc. Knowledge management utility enables users to find solutions to problems by semantically analyzing documents by breaking sentences into noun-verb-adjective trees and then applying such tools as synonym indexes.].

**Claim 5:**

**The method of claim 1, further comprising generating a visualization of the patents (visual results) for display on a screen (screen) or plotting on a large format plotter** [Grune, 0060, visual results are displayed in split or full-screen format.].

**Claim 6:**

**The method of claim 1, further comprising three-dimensionally visualizing the patents on a 3D display device** [Grune, 0010, model the results of the query in such a way that a user may display and/or map (by an audio/visual means in two or three dimensions). Must be able to display in 3D if visual means is displayed in 3D.].

**Claim 7:**

**The method of claim 1, further comprising allowing a user to review (review) the search result and revise the query (refine query) [Grune, 0023, allows user to review information and extracted pertinent information. Grune 0014, refine query.].**

**Claim 11:**

**The method of claim 1, further comprising distributing a search over a plurality of client computers [Grune, figure 5, user utilizes a computer (client) to connect to internet which connects to a client which connects to a server. A plurality of client computers are used.].**

**Claim 12:**

**The method of claim 11, wherein one of the client computers is located behind a firewall (security procedure), further comprising bypassing the firewall in sending distributed search results to a remote computer [Grune, 0015, the client computer will use security procedures to prevent users from inappropriately gaining information from the server computer. 0013, the system allows user to search by submitting a query and providing search results to user. Hence must bypass security in order to send back results to user.].**

**Claim 16:**

A system for mapping intellectual property, comprising:

**means for Searching (searching) one or more remote databases (databases) for one or more relevant patents [Grune, 0027, allows a user to enter a query via a client computer that is**

Art Unit: 2167

connected to a server on a global area network. Intelligent searching also provides a user access to the stored intellectual property and scientific information contained on various databases.];

**and**

**means for performing a network analysis (map) on the relevant patents** [Grune, [0048] that the program can be used to map patent citations or patent claims in hyperbolic tree formats] **and displaying one or more patents** (intellectual property)[Grune, [0048] The program allows for simultaneous modeling of the valuation and intellectual property results. The results may be displayed in various graphical formats.].

**Claim 17:**

**The system of claim 16, further comprising means for generating a computer-readable intellectual property mapping file** (resulting file) [Grune, 0048, maps patent citations into hyperbolic formats. 0014, resulting file.].

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 14-15, and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication 2003/0004936 by Grune et. al. (hereafter Grune) as

Art Unit: 2167

applied to claim 1, 4-7, 11-12, and 16-17 above, and further in view of U.S. Patent Application Publication 2004/0123235 by Yeh et. al. (hereafter Yeh).

**Claim 2:**

The method of claim 1, further comprising

Grune discloses, **receiving as a query one or more keywords (keywords) or assignees to be searched** [Grune, 0030, searches may include but not limited to keywords, inventor, current assignee, etc.];

**searching the query in Issued Patent or Published Application databases** (intellectual property databases) [Grune, 0028, access stored intellectual property and scientific information contained in the various databases.];

Grune does not explicitly disclose **retrieving cited prior art patents for each patent found in search results**. On the other hand, Yeh discloses, [0038], a citation analysis module is used to generate citation information of a designated patent according to patent summary information stored in the patent information table. That is, cited patents are retrieved. Grune and Yeh are relate to patent database manipulation. It would have been obvious to have modified Grune to have included the step of **retrieving cited prior art patents for each patent found in search results** based on the disclosure of Yeh. A skilled artisan would have been motivated to do so for the purpose of assisting the user to analyze development trends and directions of technologies.



Art Unit: 2167

Grune modified with Yeh discloses **updating the query by adding assignees from the cited prior art patents and running a second search using the updated query**. Grune discloses that after information related to query is retrieved, data is sent to SIPS-VSM's utilities [0011].

Which further filters the results of the query such as grouping a result according to subject, publication date, assignee (adding assignee), etc. Grune further discloses, 0015, refined query (updated query), running a search again (repeating using updated query).

**Claim 14:**

**A computer-implemented method for mapping intellectual property, comprising:**

**(a) receiving as a query one or more keywords (keywords) or assignees to be searched** [Grune, 0030, searches may include but not limited to keywords, inventors, current assignees, etc.];

**(b) searching the query in Issued Patent or Published Application (intellectual property) databases (databases)** [0028, access stored intellectual property and scientific information contained in the various databases.];

Grune does not explicitly disclose **(c) retrieving cited prior art for each patent found as search results**. On the other hand, Yeh, 0038, a citation analysis module is used to generate citation information of a designated patent according to patent summary information stored in the patent information table. That is, cited patents are retrieved. Both inventions are related to patent database manipulation. It would have been obvious to have modified Grune to have included the step of **retrieving cited prior art patents for each patent found in search results**

based on the disclosure of Yeh. A skilled artisan would have been motivated to do so for the purpose of assisting the user to analyze development trends and directions of technologies.];

Grune in combination with Yeh discloses

- (d) updating the query by adding assignees from the cited prior art;**
- (e) iteratively repeating (b)-(d) using the updated query; and**
- (f) displaying the intellectual property.**

Grune discloses that after information related to query is retrieved, data is sent to SIPS-VSM's utilities [0011]. Which further filters the results of the query such as grouping a result according to subject, publication date, assignee (adding assignee), etc. Grune further discloses, 0015, refined query (updated query), running a search again (repeating using updated query). Grune further discloses [0048] The program allows for simultaneous modeling of the valuation and intellectual property (intellectual property) results. The results may be displayed (display) in various graphical formats.

**Claim 15:**

**The method of claim 14, further comprising network analyzing (map) the search results (results)[Grune, 0048, intellectual property results and map patent citations. ].**

**Claim 18:**

The system of claim 17, wherein the IP mapping file comprises:

Grune in combination with Yeh discloses **a collection of patent documents, each having one or more links embedded in the first portion referencing one or more external documents viewable using a viewer application; and one or more links embedded in the third portion referencing information contained in the second portion; and links generated by a network analysis of relationships among the patent documents.** Yeh discloses a 0045 a patent citation tree generated in accordance with data stored in the patent information table (referencing external documents). The citation analyzing module generates citation links among a plurality of patents according to the summary data stored in the patent information table (one or more links embedded in the third portion referencing information contained in second portion). The link generating module generates sub-node links between the nodes, and adds sub-node links to the node data structure. Each sub-node link represents one or more citation links, and connects one node with it's respective one or more nodes. Yeh further discloses, 0048, that the node link structures are displayed in hyperbolic plane in the display unit (viewer application). Grune discloses [0048] that the program can be used to map patent citations or patent claims in hyperbolic tree formats (links generated by a network analysis relationship among patents).

**Claim 19:**

**A computer readable media, executable by a processor, containing executable computer program instructions comprising:**

Art Unit: 2167

**Code to receive as a query one or more keywords (keywords) or assignees to be searched**[Grune, 0030, searches may include but not limited to keywords, inventors, current assignees, etc.];

**Code to search the query in an issued Patent or Published Application databases** (intellectual property) **databases** (databases) [0028, access stored intellectual property and scientific information contained in the various databases.];

Grune does not explicitly disclose **Code to retrieve cited prior art patents for each patent found in search results**. On the other hand, Yeh, 0038, a citation analysis module is used to generate citation information of a designated patent according to patent summary information stored in the patent information table. That is, cited patents are retrieved. Both inventions are related to patent database manipulation. It would have been obvious to have modified Grune to have included the step **to retrieve cited prior art patents for each patent found in search results** based on the disclosure of Yeh. A skilled artisan would have been motivated to do so for the purpose of assisting the user to analyze development trends and directions of technologies.];

Grune in combination with Yeh discloses

**Code to update the query by adding assignees from the cited prior art patents;**

**Code to run a second search using the updated query; and**

**Code to perform a network analysis on a search results and to display the search result.**

Art Unit: 2167

Grune discloses that after information related to query is retrieved, data is sent to SIPS-VSM's utilities [0011]. Which further filters the results of the query such as grouping a result according to subject, publication date, assignee (adding assignee), etc. Grune further discloses, 0015, refined query (updated query), running a search again (repeating using updated query). Grune, [0048] that the program can be used to map (network analysis) patent citations or patent claims in hyperbolic tree formats. Grune further discloses [0048] The program allows for simultaneous modeling of the valuation and intellectual property (intellectual property) results. The results may be displayed (display) in various graphical formats.

**Claim 20:**

**The media of claim 19, further comprising instructions to distribute the processing over a plurality of computers** [Grune, Figure 5 illustrates plurality of computers. Namely a client and server.].

**Claim 3 rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication 2003/0004936 by Grune et. al. (hereafter Grune) as applied to claim 1, 4-7, 11-12, and 16-17 above, and further in view of "H3: Laying Out Large Directed Graphs in 3D Hyperbolic Space" by Tamara Munzner (hereafter Munzner)**

**Claim 3:**

The method of claim 1, further comprising:

Grune does not explicitly disclose **for each patent, creating spring relationship among patents based on number of citation of patent prior art; and generating a spring mass diagram**. On the other hand, Munzner, page 6, discloses iterative force-directed placement systems that models (generates) nodes and links as a mass-spring system (spring mass/spring relationship between nodes), where nodes repulse each other but links exert an attractive force. Further disclosing that while these iterative systems do well with relatively small graphs they have difficulty converging when the number of nodes (based on number of nodes) scales from hundreds to thousands. Grune and Munzner both disclose a system to visualize data. It would have been obvious to one of ordinary skill at the time the invention was made to have modified Grune to have included the step of **for each patent, creating spring relationship among patents based on number of citation of patent prior art; and generating a spring mass diagram** based on the disclosure of Munzner. A skilled artisan would have been motivated to do so for the purpose of visualizing data.

**Claims 8-10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication 2003/0004936 by Grune et. al. (hereafter Grune) as applied to claim 1, 4-7, 11-12, and 16-17 above, and further in view of U.S. Patent 6339767 by Rivette et. al. (hereafter Rivette).**

**Claim 8:**

**The method of claim 1, further comprising caching results from prior IP maps in a remote computer**

Art Unit: 2167

Grune does not explicitly disclose caching results from prior IP maps in a remote computer alone. However Grune does disclose 0014 that the system displays the results in the resulting files in an audio/visual format, and the user may save or print the result files generated by the query (results of IP maps). On the other hand Rivette, c. 55 l. 30-55 discloses a caching subsystem that caches/retrieves cached patent data (caching IP data in a remote computer). Both Grune and Rivette disclose a system involving patent display systems. It would have been obvious to one of ordinary skill at the time the invention was made to have included the step of caching results from prior IP maps in a remote computer based on the disclosure of Rivette. One of ordinary skill in the art would have been motivated to do so for the purpose of quickly accessing frequently used data.

**Claim 9:**

**The method of claim 8, further comprising retrieving (retrieval) a cached IP map in response to a user request (request) [Rivette, c.54 l. 17, retrieval request is sent to cached subsystem]**

**Claim 10:**

**The method of claim 8, further comprising periodically flushing cached IP maps to ensure a fresh IP map [Grune, 0014, user is able to create new search, thus a new map. Flushing a cache is well known<sup>1</sup>].**

**Claim 13:**

Grune does not explicitly disclose **further comprising annotating a patent at a local computer and caching the annotated patent at a remote computer to satisfy a subsequent request for said patent** alone. However, Rivette discloses c.2 l.44-56, annotating (annotating) patents and importing and exporting patents. Further disclosing as in claim 18, retrieving a request for patent data through the use of a cache subsystem (caching,/request). It would have been obvious to one of ordinary skill at the time the invention was made to have included the step of **annotating a patent at a local computer and caching the annotated patent at a remote computer to satisfy a subsequent request for said patent** based on the disclosure of Rivette. One of ordinary skill in the art would have been motivated to do so for the purpose of quickly accessing frequently used data and to provide the user a method of reminding / analyzing a patent.

***Response to Arguments***

Applicant's arguments filed 8/10/2006 have been fully considered but they are not persuasive. The applicant has asserted mainly the below remarks, which are replied to herein this office action set forth below.

The applicant's main argument toward the independent claims is that the network analysis aspect is missing (response page 8, last paragraph). The applicant proceeds to define network analysis, while further implying that network analysis is well-known by providing an internet definition by an on-line encyclopedia called Wikipedia (response page 9). The applicant

---

<sup>1</sup> Flushing a cache is well known. Wikipedia, Wikitech, and even a weblog helpdesk discloses flushing of



Art Unit: 2167

further provides an embodiment of the application stating that network analysis can generate sociograms (network diagrams) to visualize the networks being analyzed. The applicant further insists that pages 20-24 of the instant application provides other embodiments of network analysis (response page 9).

In response, the examiner respectfully disagrees with applicant that the Grune reference does not disclose a network analysis.

First, it is noted that the applicant has essentially stated that network analysis is not novel by providing a public web definition, embodiments of network analysis being utilized, and further suggesting that the term network analysis is well-known.

Secondly, as to the Internet definition provided by Wikipedia, stating that a network analysis is the analysis of networks through network theory (or more generally graph theory). It appears that the term network analysis is similar to the term mapping. Hence this appears to indicate the mapping step of the independent claim. Therefore, it is noted that the applicant provides no step of mapping and instead utilizing the words network analysis. It is further noted that there is no specific way to perform the network analysis on the relevant patents. All that is required is to perform a network analysis on the relevant patents.

Now, based on the specifications, page 23-24 (pages indicated by Applicant, who has insisted embodiments of network analysis are discussed) it appears an embodiment of a network analysis may embody a hyperbolic tree. Grune,[0012] discloses visual formats maybe landscape maps, hyperbolic trees, etc. Thus, Grune discloses a network analysis. Grune not only discloses hyperbolic trees, but further discloses [0048] that the program can be used to map patent citations or patent claims in hyperbolic tree formats. In doing so, it displays the relevant results [0045 relevant results are modeled for display, 0046, display of results]. Further stating that a single patent or claim is at the center of the hyperbolic tree and related claims or patents are the branches connected to the root center. Therefore the argued claim limitation “performing a network analysis on the relevant patents” is clearly taught by the Grune reference, as the claim limitation is directed towards a method/system for mapping intellectual property through network theory (or more generally graph theory). Furthermore, graph theory is the study of graphs (graphs<sup>2</sup> are discrete structures consisting of vertices and edges that connect these vertices). Because Grune anticipates claims 1 and 16, claims that depend therefrom such as claims 4-13 and 17 are further rejected.

Claim 14 does not contain a network analysis; however, even if it did Grune would disclose it. Claims depending from claim 14 are further rejected.

---

<sup>2</sup> Discrete Mathematics and It's Applications, by Kenneth H. Rosen, page 438.

With respect to the claims in general, because the independent claims scope has changed, and further new grounds of rejection was forced. Applicant's arguments have been considered as noted above, but are now moot in view of the new ground(s) of rejection.

### ***Conclusion***

The prior art made of record listed on PTO-892 and not relied, if any, upon is considered pertinent to applicant's disclosure.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael D. Pham whose telephone number is (571)-272-3924. The examiner can normally be reached on Monday - Friday 9am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael Pham  
Art Unit 2167  
Examiner  
10/2/06

Debbie Le  
Art Unit 2168  
Primary Examiner

DL

John Cottingham  
Art Unit 2167  
Supervisor

  
JOHN COTTINGHAM  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100